SEQUENCE LISTING

- (1) GENERAL INFORMATION
- BILLING-MEDEL, PATRICIA A. (i) APPLICANT:

COHEN, MAURICE COLPITTS, TRACEY L. FRIEDMAN, PAULA N. HAYDEN, MARK

KLASS, MICHAEL R. ROBERTS-RAPP, LISA RUSSELL, JOHN C. STROUPE, STEPHEN D.

- (ii) TITLE OF THE INVENTION: REAGENTS AND METHODS USEFUL FOR DETECTING DISEASES OF THE GASTROINTESTINAL TRACT
- (iii) NUMBER OF SEQUENCES: 22
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Abbott Laboratories
 - (B) STREET: 100 Abbott Park Road
 - (C) CITY: Abbott Park
 - (D) STATE: IL

 - (E) COUNTRY: USA (F) ZIP: 60064-3500
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette
 - (B) COMPUTER: IBM Compatible (C) OPERATING SYSTEM: DOS

 - (D) SOFTWARE: FastSEQ for Windows Version 2.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER:(B) FILING DATE:

 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: 08/828,845
 - (B) FILING DATE: 31-MAR-1997
- (viii) ATTORNEY/AGENT INFORMATION:

 - (A) NAME: Becker, Cheryl L. (B) REGISTRATION NUMBER: 35,441
 - (C) REFERENCE/DOCKET NUMBER: 6066.US.P1
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 847/935-1729 (B) TELEFAX: 847/938-2623 (C) TELEX:

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 254 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CTGGGATCAG	CCACTGCAGC	TCCCTGAGCA	CTCTCTACAG	AGACGCGGAC	CCCAGACATG	60
AGGAGGCTCC	TCCTGGTCAC	CAGCCTGGTG	GTTGTGCTGC	TGTGGGAGGC	AGGTGCAGTC	120
CCAGCACCCA	AGGTCCCTAT	CAAGATGCAA	GTCAAACACT	GGCCCTCAGA	GCAGGACCCA	180
GAGAAGGCCT	GGGGCGCCCG	TGTGGTGGAG	CCTCCGGAGA	AGGACGACCA	GCTGGTGGTG	240
CTGTTCCCTG	TCCA					254

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 261 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

AGCCACTGCA	GCTCCCTGAG	CACTCTCTAC	AGAGACGCGG	ACCCCAGACA	TGAGGAGGCT	60
CCTCCTGGTC	ACCAGCCTGG	TGGTTGTGCT	GCTGTGGGAG	GCAGGTGCAG	TCCCAGCACC	120
CAAGGTCCCT	ATCAAGATGC	AAGTCAAACA	CTGGCCCTCA	GAGCAGGACC	CAGAGAAGGC	180
CTGGGGCGCC	CGTGTGGTGG	AGCCTCCGGA	GAAGGACGAC	CAGCTGGTGG	TGCTGTTCCC	240
TGTCCAGAAG	CCGAAACTCT	${f T}$				261

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 534 base pairs
 - (B) TYPE: nucleic acid (C) STRANDEDNESS: single

 - (D) TOPOLOGY: linear

(ix) FEATURE:

- (A) NAME/KEY: base_polymorphism
 (B) LOCATION: 458
- (D) OTHER INFORMATION: /note= "'N' represents an A or G or T or C polymorphism at this position"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

TCCCGGCCTG	CTGGGGTTTA	TTTGTCTAGC	TGGGGCAGGG	TAGGGAGGGT	CCCAGTCCCA	60
ACAGCCTGGG	CCTTGGGACA	GGGCGGGGC	AGTGATGGCC	CCTGGAGCCC	TACTGGGGGT	120
GGTAGATGTG	GTCTTGGTCT	TCCTCCGGTC	CCAGGAGCAC	CTGGTGATTT	GGCATCACCC	180
ACAACCGGGG	CCTCTCCTCG	CCCTGGTCCT	CCTCAGGCGG	AGGGTGGTAC	AGGCTGTCAT	240
GGTCGGGCTC	GGGACTCAGG	ACACGGCCCA	GGGTGTCCTC	GGTCTCCATC	CAGGCCTTGG	300
TGCCTGGAAG	GATGGGGCCC	CTGCCCTGAC	CTCGTGGCTT	CTCCTCGGTG	GTCAAGAGTT	360
TCGGCTTCTG	GACAGGGAAC	AGCACCACCA	GCTGGTCGTC	CTTCTCCGGA	GGCTCCACCA	420
CACGGGCGCC	CCAGGCTTCT	CTGGGTCCTG	CTCTGAGNGG	CAGTGTTTGA	CTTGCATCTT	480
GATAGGGAAC	TTGGGTGCTG	GGAATGCACC	TGCCTCCCAC	AGAAGAAAA	CAAC	534

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 615 base pairs(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

AGCCACTGCA	GCTCCCTGAG	CACTCTCTAC	AGAGACGCGG	ACCCCAGACA	TGAGGAGGCT	60
CCTCCTGGTC	ACCAGCCTGG	TGGTTGTGCT	GCTGTGGGAG	GCAGGTGCAG	TCCCAGCACC	120
CAAGGTCCCT	ATCAAGATGC	AAGTCAAACA	CTGGCCCTCA	GAGCAGGACC	CAGAGAAGGC	180
CTGGGGCGCC	CGTGTGGTGG	AGCCTCCGGA	GAAGGACGAC	CAGCTGGTGG	TGCTGTTCCC	240
TGTCCAGAAG	CCGAAACTCT	TGACCACCGA	GGAGAAGCCA	CGAGGTCAGG	GCAGGGGCCC	300
CATCCTTCCA	GGCACCAAGG	CCTGGATGGA	GACCGAGGAC	ACCCTGGGCC	GTGTCCTGAG	360
TCCCGAGCCC	GACCATGACA	GCCTGTACCA	CCCTCCGCCT	GAGGAGGACC	AGGGCGAGGA	420
GAGGCCCCGG	TTGTGGGTGA	TGCCAAATCA	CCAGGTGCTC	CTGGGACCGG	AGGAAGACCA	480
AGACCACATC	TACCACCCCC	AGTAGGGCTC	CAGGGGCCAT	CACTGCCCCC	GCCCTGTCCC	540
AAGGCCCAGG	CTGTTGGGAC	TGGGACCCTC	CCTACCCTGC	CCCAGCTAGA	CAAATAAACC	600
CCAGCAGGCC	GGGCA					615

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 622 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

CTGGGATCAG C	CACTGCAGC	TCCCTGAGCA	CTCTCTACAG	AGACGCGGAC	CCCAGACATG	60
AGGAGGCTCC T	CCTGGTCAC	CAGCCTGGTG	GTTGTGCTGC	TGTGGGAGGC	AGGTGCAGTC	120
CCAGCACCCA A	GGTCCCTAT	CAAGATGCAA	GTCAAACACT	GGCCCTCAGA	GCAGGACCCA	180
GAGAAGGCCT G	GGGCGCCCG	TGTGGTGGAG	CCTCCGGAGA	AGGACGACCA	GCTGGTGGTG	240
CTGTTCCCTG T	CCAGAAGCC	GAAACTCTTG	ACCACCGAGG	AGAAGCCACG	AGGTCAGGGC	300
AGGGGCCCCA T	CCTTCCAGG	CACCAAGGCC	TGGATGGAGA	CCGAGGACAC	CCTGGGCCGT	360
GTCCTGAGTC C	CGAGCCCGA	CCATGACAGC	CTGTACCACC	CTCCGCCTGA	GGAGGACCAG	420
GGCGAGGAGA G	GCCCCGGTT	GTGGGTGATG	CCAAATCACC	AGGTGCTCCT	GGGACCGGAG	480
GAAGACCAAG A	.CCACATCTA	CCACCCCCAG	TAGGGCTCCA	GGGGCCATCA	CTGCCCCCGC	540
CCTGTCCCAA G	GCCCAGGCT	GTTGGGACTG	GGACCCTCCC	TACCCTGCCC	CAGCTAGACA	600
AATAAACCCC A	.GCAGGCCGG	GA				622

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 68 base pairs (B) TYPE: nucleic acid

 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

AGCTCGGAAT TCCGAGCTTG GATCCTCTAG AGCGGCCGCC GACTAGTGAG CTCGTCGACC 60 CGGGAATT 68

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 68 base pairs

 - (B) TYPE: nucleic acid (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

AATTAATTCC CGGGTCGACG AGCTCACTAG TCGGCGGCCG CTCTAGAGGA TCCAAGCTCG GAATTCCG	60 68
(2) INFORMATION FOR SEQ ID NO:8:	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 24 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:	
AGCGGATAAC AATTTCACAC AGGA	24
(2) INFORMATION FOR SEQ ID NO:9:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 18 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:	
TGTAAAACGA CGGCCAGT	18
(2) INFORMATION FOR SEQ ID NO:10:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:	
CTGTCCAGAA GCCGAAACTC	20
(2) INFORMATION FOR SEQ ID NO:11:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:	
AGGAAGACCA AGACCACATC	20
(2) INFORMATION FOR SEQ ID NO:12:	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 22 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:	

GGTAGATGTG GTCTTGGTCT TC	22					
(2) INFORMATION FOR SEQ ID NO:13:						
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 						
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:						
CTCGGTGGTC AAGAGTTTCG	20					
(2) INFORMATION FOR SEQ ID NO:14:						
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 24 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear						
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:						
TTCCCTGTCC AGAAGCCGAA ACTC	24					
(2) INFORMATION FOR SEQ ID NO:15:						
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 						
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:						
TGGGGTTTAT TTGTCTAGCT GGGGC	25					
(2) INFORMATION FOR SEQ ID NO:16:						
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 151 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear						
(ii) MOLECULE TYPE: None						
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:						
Met Arg Arg Leu Leu Val Thr Ser Leu Val Val Leu Leu Trp 1 10 15 Clu Ala Cla Ala Val Dua Ala Dua Val Dua Val Dua Val						
Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30						
Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg 35 40 45 Val. Val. Dec. Dec. Gly Lys Ala Trp Gly Lys Dly Dec.						
Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro 50 55 60						
Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln 65 70 75 80						
Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu 85 90 95						

Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu 100 105 Tyr His Pro Pro Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu 115 120 125 Trp Val Met Pro Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln 135 Asp His Ile Tyr His Pro Gln

(2) INFORMATION FOR SEQ ID NO:17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 29 amino acids

 - (B) TYPE: amino acid (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val Lys His 10 Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala 20 25

- (2) INFORMATION FOR SEQ ID NO:18:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe 10 Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly 20 Gln Gly Arg Gly

- (2) INFORMATION FOR SEQ ID NO:19:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 35 amino acids

 - (B) TYPE: amino acid (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg 10 Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro 25 Glu Glu Asp

(2) INFORMATION FOR SEQ ID NO:20:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 32 amino acids (B) TYPE: amino acid

 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro 10 Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr 25

- (2) INFORMATION FOR SEQ ID NO:21:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 8 amino acids

 - (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

Asp Tyr Lys Asp Asp Asp Lys

- (2) INFORMATION FOR SEQ ID NO:22:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 21 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single (D) TOPOLOGY: linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Met His Thr Glu His His His His His His 20